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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,159	03/05/2002	Kunio Koike	111595	5457

25944 7590 03/25/2004

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EXAMINER

BELL, PAUL A

ART UNIT	PAPER NUMBER
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2675

DATE MAILED: 03/25/2004

6

Please find below and/or attached an Office communication concerning this application or proceeding.

71

**Office Action Summary**

Application No.

10/090,159

Applicant(s)

KOIKE, KUNIO

Examiner

PAUL A BELL

Art Unit

2675

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 March 2002.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-16 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ho (3,984,973) in view of Fujisawa (2004/0037173).

With regard to claim 1 Ho teaches a panel driving control device (figure 2), comprising: a liquid-crystal panel control device that controls the driving of a liquid-crystal panel by applying an AC voltage to said panel (SEE Ho figure 2, items 82, 110, 108, 116, 114, 112, 22, 24, 26, and 28); a "second" panel control device that controls the driving of an "second" panel by applying an AC voltage to said panel (See Ho figure 2, items 120, 118, 30, 32, 34, and 36); and a frequency supply device that supplies, to said liquid-crystal panel control device and said "second" control device, a driving frequency which is required for the "second" panel to display an object to be displayed without flicker when said "second" panel is AC-driven, wherein said liquid-crystal panel control device and said "second" control device control said driving on the basis of the driving frequency supplied by said frequency supply device (figure 2,

item 60 and also there is no flicker in second panel when you hold pushbuttons 50 and 52).

Ho does not teach the "second" panel control device being an "organic-EL" panel control device or the "second" panel being an "electro luminescence" panel. Ho instead use a LED.

Fujisawa teaches that in the prior art of watches like Ho it is well known to use displays such to EL or LED (SEE Fujisawa col 10 [0168] figure 14, item 121.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Ho watch by taking out the LED panel and replacing it with the EL panel taught by Fujisawa because the EL was considered an obvious equivalent to a LED since they both emit light when a voltage is applied and are both commonly used in watches.

With regard to claim 2 the combination of Ho and Fujisawa suggest a panel driving control device according to claim 1, the driving frequency supplied by said frequency supply device being approximately twice the driving frequency which is normally required for the liquid-crystal panel to be driven (obvious based on Nyquist criterion and would be needed to avoid flicker).

With regard to claim 3 the combination of Ho and Fujisawa suggest a panel driving control device according to claim 1, the

Art Unit: 2675

driving frequency supplied by said frequency supply device being a frequency which is greater than or equal to 50 Hz (obvious because the norm is 60 HZ to avoid flicker).

3. Claims 4-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Ho (3,984,973) and Fujisawa (2004/0037173) as applied to claims 1-3 above, and further in view of Takebe (5,898,442).

With regard to claim 4 the combination of Ho and Fujisawa does not teach, " a driving voltage by which the on/off state of both said liquid-crystal panel and said organic electro luminescence panel can be controlled by a common driving method, wherein said liquid-crystal panel control device and said organic-EL-panel control device control said driving on the basis of said supplied driving voltage".

However Takebe teaches that it is well-known in the prior art that the same circuit structure can be used to drive a LCD or EL (See Takebe column 5, lines 26-44).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Ho and Fujisawa watch by taking out the two controllers and replacing it with just one controller which is used to drive both the EL and LCD as taught by Takebe because the motivation of using less parts is well-known in the prior art.

With regard to claim 5 the combination of Ho, Fujisawa and Takebe suggest a panel driving control device according to claim

4, "the driving voltage supplied by said common driving method and said voltage supply device being determined by said single color displayed on said organic electro luminescence panel."

(obvious feature because since the EL panel requires the most voltage to operate, it would be used to determine the maximum voltage and a simple divider would be used to reduce the voltage needed by LCD).

With regard to claim 6 the combination of Ho, Fujisawa and Takebe was shown above to teach most of the limitations of claim 6 and in addition the combination suggest an EL displaying a plurality of colors(because multi-color EL displays are well-known in the prior art and one of ordinary skill would have been motivated to prefer more than one color because they are more marketable), a driving method selection device that selects a driving voltage and a driving method for driving said liquid-crystal panel and said organic electro luminescence panel in accordance with the display color displayed by said organic electro luminescence panel (SEE Takebe figure 1, item 7); a driving method reporting device that reports the driving method selected by said driving method selection device to said liquid-crystal panel control device and said organic-EL-panel control device (SEE Takebe figure 1 and figure 10);

Art Unit: 2675

With regard to claim 7 the combination of Ho, Fujisawa and Takebe, teaches a panel driving control device according to claim 6, said driving method selection device selecting a driving voltage suitable for driving a display color displayed by said organic electro luminescence panel from among a plurality of driving voltages of different magnitudes, and selecting a driving method of a duty ratio suitable for driving a display color to be displayed by said organic electro luminescence panel from among a plurality of driving methods of different duty ratios; (because it is obvious that since were using the same driver to drive either an LCD or EL which require different voltages and duty ratios to work there would have been a plurality of driving voltages of different magnitude and different duty ratios also see Takebe column 5, lines 32-39).

With regard to claim 8 the combination of Ho, Fujisawa and Takebe, was found above to teach most of the limitations of claim 8 and in addition a wristwatch-type information device (SEE Ho figure 1), a power-supply device that supplies power to said panel driving control device ( It is obvious that a digital watch would have power as broadly claimed); and a clock supply device that supplies, to said panel driving control device, a clock signal required for the panel driving control device to perform driving control (figure 2, item 6).

With regard to claim 9 all of the limitations have been met above because a watch is a portable device.

With regard to claims 10-14 all of the limitations have been met above in claims above.

With regard to claims 15 and 16 since the apparatus above was shown to read on the prior art the method of operation of the apparatus would have been obvious.

#### Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Bell whose telephone number is (703) 306-3019.

If attempts to reach the examiner by telephone are unsuccessful the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377 can help with any inquiry of a general nature or relating to the status of this application.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Or Faxed to: (703) 872-9314 (for Technology Center 2600 only)

Or Hand-delivered to: Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor

(Receptionist)

*Paul Bell*

Paul Bell

Art unit 2675

March 11, 2004

*Chanh Nguyen*  
CHANH NGUYEN  
PATENT EXAMINER